

R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

INFORMATION DISCLOSURE STATEMENT

The Examiner's attention is directed to the information disclosure statement filed concurrently with this response.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments may be found in the specification, for example, on page 2 lines 12-19, page 16 line 7-14, page 16 lines 18-20, page 13 line 10-page 14 line 3, page 14 lines 7-18, page 12 lines 12-19 and FIGS. 1-4, as originally filed. Thus, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over "SBAE-10 Bus Analyzer-Exerciser User's Manual" and "Analyzer/Exercise/Tester" specification sheet, both by Catalyst Enterprises, Inc. (hereafter Catalyst) in view of Goutzoulis et al. '630 (hereafter Goutzoulis) and Krause et al. '911 (hereafter Krause) has been obviated in part by appropriate amendment, is respectfully traversed in part, and should be withdrawn.

Catalyst concerns a bus analyzer/exerciser/tester system. Goutzoulis concerns a method and apparatus for generating and transferring high speed data for high speed testing applications (Title). Krause concerns an apparatus and method for implementing a bank interlock scheme and related test mode for multibank memory devices (Title).

Claim 1 provides a host emulator having (i) a first interface coupled to a low speed tester to receive a test vector at a first speed and (ii) a second interface configured to (a) transmit the test vector to a device at a second speed faster than the first speed. In contrast, the Office Action states starting on page 3, "Catalyst does not explicitly state that the emulator transmits test data at a second speed faster than the first speed received from the low-speed tester." No evidence is provided in the Office Action that Goutzoulis or Krause cure the different speed deficiency of Catalyst. Therefore, Catalyst, Goutzoulis and Krause, alone or in combination do not teach or suggest a host emulator having (i) a first interface coupled to a low speed tester to receive a test vector at a first speed and (ii) a second interface configured to (a) transmit the test vector to a device at a second speed faster than the first speed as presently claimed.

Furthermore, Applicants' representative respectfully traverses the assertion on page 4 of the Office Action that a parallel port cannot transmit data at a speed fast enough to

perform the low and full-speed testing of a USB. Inherency requires certainty of results, not mere possibility. See, e.g., *Ethyl Molded Products Co. v. Betts Package, Inc.*, 9 U.S.P.Q. 2d 1001 (E.D.Ky 1988). See also, *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981). In particular, the "LPT Port Setting" section on page 10 of the Catalyst User's Manual indicates that the parallel port between a host computer (asserted similar to the claimed low speed tester) and an SBAE-10 (asserted similar to the claimed host emulator) can be set as ECP or EPP. The "USB Info: Frequently Asked Questions" reference states that ECP/EPP parallel ports can transfer data at 3MBYTES/s while an Original USB operates at 1.5 MBYTES/s. There is no certainty that a parallel port cannot transmit data at a speed fast enough to perform the low and full-speed testing since a parallel port may transfer data twice as fast as a full-speed USB. Therefore, the Office Action fails to establish *prima facie* obviousness for lack of evidence that the references teach or suggest every claim limitation.

Furthermore, the Office Action fails to provide clear and particular evidence of motivation to combine Catalyst with Goutzoulis. In particular, the Office Action states on page 5 that Goutzoulis teaches a test vector generator. However, claim 1 does not provide a test vector generator. No clear and particular motivation appears to exist to include a test vector generator where none is claimed. Therefore, *prima facie* obviousness has not

been established for lack of motivation to combine Catalyst and Goutzoulis.

Claim 1 further provides a host emulator having (i) a first interface coupled to a low speed tester and (iii) a third interface to the low speed tester. In contrast, both Catalyst and Goutzoulis appear to be silent regarding two interfaces between the host computer and the SBAE-10. Krause does not appear to cure the interface deficiency of Catalyst and Goutzoulis. In particular, the Office Action states on page 5 that Krause teaches splitting the parallel port of Catalyst into two separate interfaces. The Office Action asserts that motivation to make the change to Catalyst exists in Krause "to use whichever type of device is most readily available." However, Figure 1 on page 1 of the Catalyst User's Manual shows that a parallel bus is readily available. Therefore, using the Office Action's own motivation, one of ordinary skill in the art would appear to be motivated to keep the parallel bus of Catalyst as-is since the parallel port is "readily available". Furthermore, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness (MPEP §2143.01). The Office Action does not provided any motivation to split the parallel port of Catalyst into two separate interfaces. Therefore, *prima facie* obviousness has not been established for lack of motivation to modify Catalyst and Goutzoulis with Krause.

Furthermore, the assertion on page 5 of the Office Action that "the combination would have reduced a possibly [sic] of data collision between the low-speed tester and the host emulator both sending data to each other at the same time, by providing distinct interfaces for handling each type of data transmission" is not credited to any reference or knowledge generally available to one of ordinary skill in the art as required by MPEP §2142. Therefore, the above alleged motivation is merely a conclusory statement. The Examiner is respectfully requested to either (i) identify the source of the alleged motivation, and if knowledge generally available, provide evidence or (ii) withdraw the rejection.

Furthermore, the assertion on page 6 of the Office Action that separating the parallel port of Catalyst into two separate interfaces reduces "the required complexity of the system by separating a bi-directional interface, that would have to be able to handle and route both data received from the low-speed tester as well as data from the emulator for transmission to the low-speed tester, into two separate distinct interfaces" is not credited to any reference or knowledge generally available to one of ordinary skill in the art as required by MPEP §2142. Therefore, the above alleged motivation is merely a conclusory statement. The Examiner is respectfully requested to either (i) identify the source of the alleged motivation, and if knowledge generally available, provide evidence or (ii) withdraw the rejection. The fact that references

can be combined or modified is not sufficient to establish *prima facie* obviousness (MPEP §2143.01).

Furthermore, each of Goutzoulis and Krause appear to be non-analogous art. MPEP 2141.01(a) states:

"In order to rely on a reference as a basis for rejection for an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)

The applicant's field of endeavor is verifying operation of a USB device with a production test mode device (application page 1, lines 7-8). In contrast, neither Goutzoulis nor Krause appear to be within the field of verifying operation of a USB device. The particular problems with which the inventors are concerned include tester cost (page 2, lines 4-5), full characterization (page 2, lines 17-20), non peer-to-peer testing (page 3, lines 3-6) and initiating communications from a slave device (page 3, lines 11-14). In contrast, neither Goutzoulis nor Krause appear to be reasonably pertinent to any of the problems with which the inventors are concerned. Therefore, *prima facie* obviousness to combine the references has not been established as both Goutzoulis and Krause appear to be non-analogous art.

In summary, the Office Action fails to establish *prima facie* obviousness for lack of evidence (i) that the references teach or suggest every claim limitation, (ii) for motivation to combine the references and (iii) that Goutzoulis and Krause are

analogous art. Claims 15 and 16 provide language similar to claim 1. As such, the claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Claim 4 provides a test vector generator configured to transfer a test vector to a low speed tester. In contrast, the Office Action fails to establish clear and particular evidence of motivation to combine a test vector generator of Goutzoulis with the system of Catalyst. In particular, the Office Action asserts on page 3 that the host computer of Catalyst has "a tester function to control the apparatus/host emulator to initiate test packets for a transmission/reception loop." The Office Action appears to assert that the test packets of Catalyst are similar to the claimed test vectors. Therefore, the Office Action appears to assert in the arguments for claim 1 that a test vector/test packet generation capability already exists in Catalyst. In contrast, no evidence or convincing line of reasoning is provided in the Office Action to duplicate the test vector capability of Catalyst by adding another test vector generation capability from Goutzoulis. Claim 19 provides language similar to claim 4. As such, the Examiner is respectfully requested to either (i) explain why one of ordinary skill in the art would be motivated to duplicate a capability already alleged to be in Catalyst or (ii) withdraw the rejection for both claims 4 and 19.

Claim 11 provides a device configured to initiate

transmission of one or more test packets under control of a host emulator. In contrast, each of Catalyst, Goutzoulis and Krause appear to be silent regarding a device configured to initiate transmission of one or more test packets under control of a host emulator as presently claimed. As such, claim 11 is fully patentable over the cited references and the rejection should be withdrawn.

Claim 13 provides a low speed tester configured to (i) make a decision for a pass/fail condition of a device based on a response and (ii) generate a pass/fail signal indicating the decision. In contrast, each of Catalyst, Goutzoulis and Krause appear to be silent regarding a low speed tester configured to (i) make a decision for a pass/fail condition of a device based on a response and (ii) generate a pass/fail signal indicating the decision as presently claimed. As such, claim 13 is fully patentable over the cited references and the rejection should be withdrawn.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office  
Account No. 50-0541.

Respectfully submitted,

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Dated: October 1, 2004

Docket No.: 0325.00418